



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,710	07/31/2003	Paul Clifford	1120.42453X00	1609
20457	7590	12/01/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			PHAN, THO GIA	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,710

Applicant(s)

CLIFFORD, PAUL

Examiner

Tho G. Phan

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6-8,10,11 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 3-5,9,12-14 and 18-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 7-8, 10-11 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by the EP publication (0 921 646) to Zubrzycki et al.

Zubrzycki et al in figures 1 and 5-6 teach a receiver device comprising at least two receiving elements (antenna 1, antenna 2) for receiving radio signals through at least two respective different receiving paths (path of antenna 1 and 2); combination circuit means 8 for combining signals received through the at least two different receiving paths; and a common receiver means 10 for processing the combined signals in a common multi-carrier path (see abstract), each of the combined signals comprising a plurality of channel signals (channel signal from antenna 1,2) and the combining means 8 is adapted to generate a multi-carrier signal (summed output) by allocating different carriers (carrier the signal from antenna 1,2) to the channel signals of the combined signals.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2821

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 6, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zubrzycki et al in view of Martek et al (6,351,237).

Zubrzycki et al have been discussed above but fail to teach the receiving elements comprise sector antennas adapted to receive signals only from respective predetermined angular sectors, a base transceiver station, wherein the signals from/to different sectors is performed by using a common receiver and processing. However, Martek et al in figures 1-6 teach the receiving elements comprise sector antennas adapted to receive signals only from respective predetermined angular sectors (column 2, lines 7-26), a base station (MOBILE, figure 2), and wherein the signals from/to different sectors is performed by using a common receiver and processing 803 (column 9, lines 1-17). It would have been obvious design choice to provide the receiving elements comprise sector antennas adapted to receive signals only from respective predetermined angular sectors, a base transceiver station, wherein the signals from/to different sectors is performed by using a common receiver and processing into Zubrzycki et al for the purpose of forming or synthesizing a desired sector pattern size and/or orientation (i.e., azimuthal direction) (column 9, lines 14-17).

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

3. The claims are allowable over the art of record because the prior art does not teach diverse combining means for combining the diverse receiving paths, and common diverse receiving means for processing signals received through the combined diverse receiving paths in a common diverse multi- carrier path (claim 3); the common receiver means comprises baseband

Art Unit: 2821

channelizing means for generating channelized data from each of the channel signals (claim 9); the received radio signal is an EDGE signal received via a wideband receiver (claim 12), in combination with the remaining claimed limitations.

4. Claims 3-5, 9, 12-14 and 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

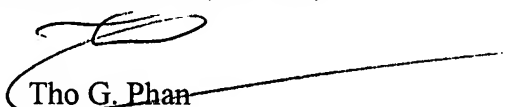
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited patents to Gilhousen et al ('668), Clifford and Gilhousen et al ('058) are cited as of interested and illustrated a similar structure to receiver and method of receiving assembly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho G. Phan whose telephone number is 571-272-1826. The examiner can normally be reached on (M-R), Monday-Thursday (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2821

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tho G. Phan
Primary Examiner
Art Unit 2821